

09/921,103

T068

AMENDMENTS TO THE CLAIMSIn the Claims:

- Sub
FI
E/
Cont.
1. (Original) A hand held mobile device, the mobile device comprising:
a housing;
a user programmable processor within the housing;
a display operatively coupled to the processor, the display being controlled by the processor to display a plurality of functions relating to operation of the mobile device;
a thumb wheel extending from the housing, the thumb wheel including: a wheel portion rotatable about an axis, the wheel portion being selectably rotatable about the axis to facilitate a user selecting at least one function from the plurality of functions displayed on the display, the wheel portion being transaxially moveable and wherein transaxial movement of the wheel portion initiates selection of the at least one function; and
a control circuit operatively coupled to the thumb wheel, wherein the control circuit provides at least one signal to the processor in response to movement of the wheel portion, the processor executing a predetermined routine corresponding to the at least one signal.
 2. (Original) The mobile device of claim 1, wherein the thumb wheel further includes an encoding device for indicating movement of the wheel portion.
 3. (Original) The mobile device of claim 1, wherein the processor can receive, store and execute programs input thereto by the user.
 4. (Original) The mobile device of claim 1, wherein the wheel portion is rotatable in a clockwise direction to effect scrolling among the plurality of functions in a first direction and the wheel portion is rotatable in a counterclockwise direction to effect scrolling among the plurality of functions in a second direction.
 5. (Original) The mobile device of claim 1, wherein the plurality of functions are split into groups, each group of functions being accessible by one of a plurality of menus selectable by the user via the thumb wheel.

09/921,103

T068

6. (Original) The mobile device of claim 1, wherein the display displays a plurality of items stored by the mobile device.

7. (Original) The mobile device of claim 6, wherein the thumb wheel is selectively moveable to allow a user to select at least one item of the plurality of items stored by the mobile terminal.

8. (Original) The mobile device of claim 1, wherein the mobile device produces a tone, among a plurality of producible tones, corresponding to a particular movement of the wheel portion.

9. (Original) The mobile device of claim 8, wherein the tone varies in pitch according to the corresponding particular movement of the wheel portion.

10. (Original) The mobile device of claim 1, wherein a user can change the contrast of a screen display of the mobile device via the thumb wheel.

11. (Original) A method of selecting among a plurality of functions executable by a user programmable mobile terminal, comprising the steps of:

using an interrupt generator to monitor a thumb wheel for movement of a wheel portion of the thumb wheel;

using the interrupt generator to generate an interrupt request upon movement of the wheel portion, and sending the interrupt request to an interrupt handler;

using the interrupt handler to inform a processor that an interrupt relating to movement of the wheel portion has occurred;

using the processor to determine what type of wheel portion movement has occurred, wherein the processor relates a particular wheel portion movement to at least one of the plurality of functions executable by the programmable mobile terminal; and

using the processor to perform a routine corresponding to the at least one of the plurality of functions executable by the programmable mobile terminal.

09/921,103

T068

12. (Original) The method of claim 11, wherein the wheel portion is rotatable about an axis.

13. (Original) The method of claim 11, wherein the wheel portion is transaxially moveable.

14. (Original) The method of claim 11, wherein the processor can receive, store and execute programs input thereto by the user.

E/ Cont.

15. (Original) A mobile device, comprising:
a housing;
a user programmable processor within the housing, wherein the processor can receive, store and execute programs input thereto by the user;
a display coupled to the housing for displaying a plurality of programs executable by the mobile device; and
a thumb wheel received within the housing, the thumb wheel being employable to select at least one function among the plurality of functions displayed on the display, the thumb wheel including a wheel portion, an encoding device and a control circuit, wherein: the wheel portion is rotatable about an axis and transaxially moveable, wherein transaxial movement of the wheel portion initiates selection of the at least one function; the encoding device produces at least one signal indicative of movement of the wheel portion; and
the control circuit is coupled to the encoding device for receiving the at least one signal from the encoding device and outputting a signal to the processor in response thereto, wherein
the processor performs a particular routine among a plurality of routines executable by the processor in response to the signal output by the control device.

16. (Original) A hand held mobile device, the mobile device comprising:
a portable housing;
a user programmable processor within the housing;
a display for displaying a plurality of functions executable by the mobile device;

09/921,103

T068

a thumb wheel extending from the housing, the thumb wheel facilitating selection of at least one function of the plurality of functions displayed on the display, the thumb wheel including:

a wheel portion rotatable around an axis and transaxially moveable, wherein transaxial movement of the wheel portion initiates selection of the at least one function; and

a control circuit operatively coupled to the wheel, wherein the control circuit provides a particular signal to the processor in response to a particular movement of the wheel portion, the processor executing a predetermined routine corresponding to the particular signal.

17. (Original) The mobile device of claim 16, wherein the display screen displays at least one function executable by the mobile device.

18. (Original) The mobile device of claim 17, wherein the movement of the wheel portion of the thumb wheel causes a cursor highlighting a function on the display screen to move to another function.

19. (Original) The mobile device of claim 18, wherein transaxial movement of the wheel portion causes the processor to perform operations associated with the highlighted function.

20. (Original) The mobile device of claim 19, wherein at least two successive depressions of the wheel in a transaxial direction within a predetermined period of time causes the cursor to highlight a predetermined function.

21. (Original) The mobile device of claim 20, wherein the wheel portion is rotatable in a clockwise direction to effect scrolling among the plurality of functions in a first direction and the wheel portion is rotatable in a counterclockwise direction to effect scrolling among the plurality of functions in a second direction.

22. (Original) The mobile device of claim 18, wherein an audible tone is sounded each time the cursor highlighting a function on the display screen is caused to move by movement of the wheel portion.

09/921,103

T068

23. (Previously amended) A portable device, comprising:
a housing;
a bar code reader; and
a thumb wheel adapted to facilitate user interaction with the portable device, the thumb wheel including a wheel portion rotatable about an axis, the wheel portion being selectably rotatable about the axis to facilitate a user selecting at least one function from a plurality of functions displayed on the display, and at least a portion of the thumb wheel extending from the housing, the wheel portion being transaxially moveable and wherein transaxial movement of the wheel portion initiates selection of the at least one function.
24. (Original) The device of claim 23, the thumb wheel being transaxially moveable.
25. (Original) The device of claim 24, the thumb wheel being transaxially moved to effect selection of a function performable by the device.
26. (Original) The device of claim 24, the housing being adapted to be held by one hand and the thumb wheel being transaxially moved to effect selection of a function using the one hand.
27. (Original) The device of claim 23, further comprising a processor and a card slot adapted to receive a memory card storing executable programs that are executable by the processor.
28. (Original) The device of claim 23, further comprising a display for displaying information scanned by the bar code reader, and the thumb wheel being employable to facilitate a user to scroll through the displayed information.
29. (Original) The device of claim 28, the thumb wheel being employed to select a subset of the displayed information.
30. (Original) The device of claim 23, adapted to be held by a single hand of a user and providing for the user to employ the same hand to scroll through and select a function among a plurality of functions *via* the thumb wheel.

09/921,103

T068

31. (Original) The device of claim 23, being user programmable so as to tailor the device to be able to execute desired functions, the thumb wheel being employable to scroll through the desired functions *via* rotation of the thumbwheel.

32. (Original) The device of claim 31, the thumb wheel providing for selection of at least one of the functions *via* depressing the thumb wheel in a transaxial direction.

33. (Original) The device of claim 32, further including a processor coupled to the thumbwheel, the processor adapted to execute functions selected *via* depressing the thumb wheel in a transaxial direction.

34. (Original) The device of claim 23, further including a control circuit operatively coupled to the thumb wheel and a processor, the control circuit adapted to provide at least one signal to the processor in response to movement of the thumb wheel.

35. (Original) The device of claim 23, the thumb wheel being employable to activate the bar code scanner.

36. (Original) The device of claim 23, further including a display for displaying a plurality of menus, the menus presenting a plurality of functions or sub_functions, and the thumb wheel being employable to navigate through the respective menus.

37. (Original) The device of claim 23, further including a transceiver to communicate to a remote computer a subset of collected data selected *via* a thumbwheel.

38. (Currently amended) A data collection device comprising:
a bar code scanner for collecting information; and
a thumb wheel that is rotatable about an axis and is transaxially moveable, the thumb wheel including a wheel portion rotatable about an axis, the wheel portion being transaxially moveable, the wheel portion further being selectably rotatable about the axis to facilitate a user selecting at least one

09/921,103

T068

function from a plurality of functions displayed on the display, the plurality of functions comprising at least one of: scrolling through the collected information, selecting a subset of the collected information, scrolling through a plurality of executable functions, and selecting a subset of the executable functions, wherein transaxial movement of the ~~thumb~~ wheel portion initiates selection of the at least one function.

39. (Original) The device of claim 38, the plurality of executable functions comprising one or more of: an inventory function, a production lot size function, a reorder level function, a safety stock function, a total relevant history cost function, an ordering cost function, and a marginal cost function.

40. (Original) The device of claim 38, the bar code reader being employable in scanning a patient's ID tag, and the thumb wheel being employable to scroll through a plurality of screens relating to patient information, the screens being displayed by a display that is part of the device.

41. (Currently amended) A portable inventory control device, comprising:
means for scanning bar code information; and
means for facilitating user interfacing with the device with a same user hand that is employed to concurrently hold the device, the user interfacing comprising one or more of: scrolling through functions, scrolling through scanned items, selecting a subset of the functions, and selecting a subset of the scanned items, the means for facilitating user interfacing being selectably rotatable about an axis to facilitate a user selecting at least one function from a plurality of functions displayed on the display, the means for facilitating user interfacing including a wheel portion, the wheel portion being transaxially moveable and wherein transaxial movement of the ~~means for facilitating user interfacing~~ wheel portion initiates selection of the at least one function.

42. (Currently amended) A method of using a portable inventory control device comprising:
collecting information *via* a bar code reader;
displaying the information *via* a display of the device; and

09/921,103

T068

selecting a displayed function and/or item *via* a thumb wheel that is rotatable about an axis, the thumb wheel including a wheel portion rotatable about an axis, the wheel portion being transaxially moveable, the wheel portion further being selectably rotatable about the axis to facilitate a user selecting at least one function from a plurality of functions displayed on the display, and wherein transaxial movement of the ~~thumb~~ wheel portion initiates selection of the at least one function.

43. (Original) The method of claim 42, further comprising using the thumb wheel to activate the bar code reader.

44. (Original) The method of claim 42, further comprising selecting the displayed function and/or item by transaxially moving the thumb wheel.

45. (Original) The method of claim 42, further comprising using a memory card to add functionality to the device.

46. (Currently amended) An inventory control system, comprising:
a network backbone;
a computer operatively coupled to the network backbone; and
a portable data collection device operatively coupled to the computer *via* the network backbone, the device comprising:
a bar code reader adapted to facilitate collecting information;
a thumb wheel that is rotatable about an axis, the thumb wheel facilitating user interaction with the device, the thumb wheel including a wheel portion rotatable about an axis, the wheel portion being transaxially moveable, the wheel portion further being selectably rotatable about the axis to facilitate a user selecting at least one function from a plurality of functions displayed on the display, the thumb wheel being transaxially moveable and wherein transaxial movement of the ~~thumb~~ wheel portion initiates selection of the at least one function; and
a transceiver adapted to communicate to the computer a subset of the collected information that a user selected *via* the thumb wheel.